ISSN 0954-6820
Volume 261 2007

Journal of INTERNAL MEDICINE

VOLUME CONTENTS

Editor-in-Chief: U. de Faire

Editors:
J. Anderson
B. Angelin
B. Fagrell
S. Ljunghall

Blackwell
Publishing

Published by Blackwell Publishing

Blackwell Publishing Ltd
9600 Garsington Road, Oxford OX4 2DQ, UK

Blackwell Publishing Inc.
Commerce Place, 350 Main Street, Malden, MA 02148, USA

Blackwell Publishing Asia Ltd
550 Swanston Street, Carlton South, VIC 3053, Australia

Blackwell Verlag
Kurfürstendamm 58, D-10707 Berlin, Germany

Blackwell Munksgaard
1, Rosenørns Allè, P.O. Box 227, DK-1502
Copenhagen V, Denmark

Japan/Blackwell Publishing Asia, Tokyo Office,
5F, GS Chiyoda Building, 3–11–14 Iidabashi,
Chiyoda-ku, Tokyo 102–0072, Japan

Blackwell Publishing Professional
2121 State Avenue, Ames, IA S0014–8300, USA

© 2007 Blackwell Publishing Ltd. Authorization to photocopy items for internal or personal use or the internal or personal use of specific clients is granted by Blackwell Publishing Ltd for libraries and other users registered with their local Reproduction Rights Organization (RRO), e.g. Copyright Clearance Centre (CCC), 222 Rosewood Drive, Danvers, MA 01923, USA (www.copyright.com), provided the appropriate fee is paid directly to the RRO. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed Blackwell Publishing at: journalsrights@oxon.blackwellpublishing.com

NO. 1, January 2007

THE 3RD KEY SYMPOSIUM

Contents 1

Introduction: Membrane transport proteins in health and disease 2
A. Aperia

Evidence for airway surface dehydration as the initiating event in CF airway disease 5
R. C. Boucher

Polycystic kidney disease: genes, proteins, animal models, disease mechanisms and therapeutic opportunities 17
V. E. Torres & P. C. Harris

Active sugar transport in health and disease 32
E. M. Wright, B. A. Hirayama & D. F. Loo

New roles for an old enzyme: Na,K-ATPase emerges as an interesting drug target 44
A. Aperia

Regulation and dysregulation of aquaporins in water balance disorders 53
S. Nielsen, T.-H. Kwon, J. Frøkiær & P. Agre

ORIGINAL ARTICLES

Glomerular filtration rate as measured by serum cystatin C is an important determinant of plasma homocysteine and serum methylmalonic acid in the elderly 65
C. Lewerin, S. Ljungman & H. Nilsson-Ehle

The association between the proximal extension of the clot and the severity of pulmonary embolism (PE): a proposal for a new radiological score for PE 74
W. Ghanima, M. Abdelnoor, L. O. Holmen, B. E. Nielssen & P. M. Sandset

Haemorheological, platelet and endothelial indices in relation to global measures of cardiovascular risk in hypertensive patients: a substudy of the Anglo-Scandinavian Cardiac Outcomes Trial 82
C. G. C. Spencer, D. C. Felmeden, A. D. Blann & G. Y. H. Lip

Extraintestinal focal infections in adults with nontyphoid *Salmonella* bacteraemia: predisposing factors and clinical outcome 91
P.-L. Chen, C.-M. Chang, C.-J. Wu, N.-Y. Ko, N.-Y. Lee, H.-C. Lee, H.-I. Shih, C.-C. Lee, R.-R. Wang & W.-C. Ko

LETTER TO THE EDITOR

Osteonecrosis of the jaws: maxillofacial recommendations for bisphosphonate prescribers 101
B. N. Landis, I. Dojcinovic, M. Richter & M. Hugentobler

NO. 2, February 2007

SYMPOSIUM: IT IS ALL ABOUT INFECTION

Introduction 103
S. Britton

Is susceptibility to tuberculosis acquired or inherited? 106
E. Schurr

Is susceptibility to severe infection in low-income countries inherited or acquired? 112
P. Aaby

A dendritic cell-based vaccine for treating HIV infection: background and preliminary results 123
J. M. Andrieu & W. Lu

Temporal trends in the incidence of HIV infection in antenatal clinic attendees in Addis Ababa, Ethiopia, 1995–2003 132
D. Wolday, H. Meles, E. Hailu, T. Messele, Y. Mengistu, M. Fekadu, B. S. Parekh & T. Wuhib

ORIGINAL ARTICLES

The association between fibrinogen haplotypes and myocardial infarction in men is partly mediated through pleiotropic effects on the serum IL-6 concentration 138
M. N. Mannila, P. Eriksson, K. Leander, B. Wiman, U. de Faire, A. Hamsten & A. Silveira

Mechanisms of exercise-induced ST-segment depression in patients without typical angina pectoris 148
G. M. G. Sundkvist, P. Hjemdahl, T. Kahan & A. Melcher

The prevalence of the metabolic syndrome in young adults. The Cardiovascular Risk in Young Finns Study 159
N. Mattsson, T. Rönnemaa, M. Juonala, J. S. A. Viikari & O. T. Raitakari

Use of inhaled and oral glucocorticoids, severity of inflammatory disease and risk of hip/femur fracture: a population-based case–control study 170
F. de Vries, S. Pouwels, J. W. J. Lammers, H. G. M. Leufkens, M. Bracke, C. Cooper & T. P. van Staa

Physical activity and exercise performance predict long-term prognosis in middle-aged women surviving acute coronary syndrome 178
F. Al-Khalili, I. Janszky, A. Andersson, B. Svane & K. Schenck-Gustafsson

Intracoronary enalaprilat during angioplasty for acute myocardial infarction: alleviation of postischaemic neurohumoral and inflammatory stress? 188
U. Schaefer, T. Kurz, H. Bonnemeier, A. Dendorfer, F. Hartmann, H. Schunkert & G. Richardt

LETTER TO THE EDITOR

Hypercholesterolaemia impairs monocyte function in CAD patients 201
F. S. Czepluch, A. Bergler & J. Waltenberger

NO. 3, March 2007

REVIEW ARTICLES

Clinical impact of selective serotonin reuptake inhibitors therapy with bleeding risks 205
M. S. Turner, D. B. May, R. R. Arthur & G. L. Xiong

Biochemical and bioimaging markers for risk assessment and diagnosis in major cardiovascular diseases: a road to integration of complementary diagnostic tools 214
S. M. Marcovina, F. Crea, J. Davignon, J. C. Kaski, W. Koenig, U. Landmesser, P. L. Pieri, J. Schulz-Menger, L. J. Shaw & J. Sobesky

EDITORIAL COMMENT

Patients with vascular calcifications are at increased risk of cardiovascular events: implications for risk factor management and further research 235
C. Iribarren

ORIGINAL ARTICLES

Association between aortic calcification and total and cardiovascular mortality in older women 238
N. Rodondi, B. C. Taylor, D. C. Bauer, L.-Y. Lui, M. T. Vogt, H. A. Fink, W. S. Browner, S. R. Cummings & K. E. Ensrud

Psychosocial stress and atherosclerosis: family and work stress accelerate progression of coronary disease in women. The Stockholm Female Coronary Angiography Study 245
H.-X. Wang, C. Leineweber, R. Kirkeeide, B. Svane, K. Schenck-Gustafsson, T. Theorell & K. Orth-Gomér

HAART and the heart: changes in coronary risk factors and implications for coronary risk in men starting antiretroviral therapy 255
J. A. C. Sterne, M. May, H. C. Bucher, B. Ledergerber, H. Furrer, M. Cavassini, E. Bernasconi, B. Hirschel, M. Egger & the Swiss HIV Cohort Study

One-year adherence to clinic visits after highly active antiretroviral therapy: a predictor of clinical progress in HIV patients 268
W. B. Park, P. G. Choe, S.-H. Kim, J. H. Jo, J. H. Bang, H. B. Kim, N. J. Kim, M. Oh & K. W. Choe

Prevention of serious vascular events by aspirin amongst patients with peripheral arterial disease: randomized, double-blind trial 276
Critical Leg Ischaemia Prevention Study (CLIPS) Group

Effects of rotating shift work on biomarkers of metabolic syndrome and inflammation 285
S. Sookoian, C. Gemma, T. F. Gianotti, A. Burgueño, A. Alvarez, C. D. González & C. J. Pirola

Rosiglitazone and carotid IMT progression rate in a mixed cohort of patients with type 2 diabetes and the insulin resistance syndrome: main results from the Rosiglitazone Atherosclerosis Study 293
B. Hedblad, A. Zambanini, P. Nilsson, L. Janzon & G. Berglund

LETTER TO THE EDITOR

Low plasma volume and absent feeling of thirst – a special syndrome with a link to haemochromatosis? 306
B. Werner, J. E. Svensson & M. Rundgren

NO. 4, April 2007

REVIEW ARTICLES

The TB pandemic: an old problem seeking new solutions 309
D. B. Meya & K. P. W. J. McAdam

Myocardial infarction with normal coronary arteries: a conundrum with multiple aetiologies and variable prognosis: an update 330
I. Kardasz & R. De Caterina

Ethyl pyruvate: a novel anti-inflammatory agent 349
M. P. Fink

EDITORIAL COMMENT

Low-carbohydrate diets: a place in health promotion? 363
W. C. Willett

ORIGINAL ARTICLES

Low carbohydrate-high protein diet and mortality in a cohort of Swedish women 366
P. Lagiou, S. Sandin, E. Weiderpass, A. Lagiou, L. Mucci, D. Trichopoulos & H.-O. Adami

Mortality and prognostic factors in patients with obesity-hypoventilation syndrome undergoing noninvasive ventilation 375
S. Budweiser, S. G. Riedl, R. A. Jörres, F. Heinemann & M. Pfeifer

Prognostic value of plasma soluble P-selectin and von Willebrand factor as indices of platelet activation and endothelial damage/dysfunction in high-risk patients with hypertension: a sub-study of the Anglo-Scandinavian Cardiac Outcomes Trial 384
G. I. Varughese, J. V. Patel, J. Tomson, A. D. Blann, E. A. Hughes & G. Y. H. Lip

Elevated concentrations of asymmetric dimethylarginine are associated with deterioration of glucose tolerance in women with previous gestational diabetes mellitus 392
F. Mittermayer, A. Kautzky-Willer, C. Winzer, K. Krzyzanowska, T. Prikoszovich, S. Demehri, O. Wagner & M. Wolzt

The soluble forms of CD28, CD86 and CTLA-4 constitute possible immunological markers in patients with abdominal aortic aneurysm 399
P. Sakthivel, V. Shively, M. Kakoulidou, W. Pearce & A. K. Lefvert

Erratum 408

NO. 5, May 2007

SYMPOSIUM

Developmental origins of adult disease: an introduction 410
P. M. Nilsson & A. Holmäng

The origins of the developmental origins theory 412
D. J. P. Barker

Epidemiology, genes and the environment: lessons learned from the Helsinki Birth Cohort Study 418
J. G. Eriksson

The Uppsala studies on developmental origins of health and disease 426
I. Koupil

Experimental IUGR and later diabetes 437
M. S. Martin-Gronert & S. E. Ozanne

Programming of the stress response: a fundamental mechanism underlying the long-term effects of the fetal environment? 453
D. I. W. Phillips

Developmental plasticity and human disease: research directions 461
P. D. Gluckman & M. A. Hanson

ORIGINAL ARTICLES

Irbesartan reduces common carotid artery intima-media thickness in hypertensive patients when compared with atenolol: the Swedish Irbesartan Left Ventricular Hypertrophy Investigation versus Atenolol (SILVHIA) study 472
D. Mörtsell, K. Malmqvist, C. Held & T. Kahan

Increased catecholamines and heart rate in children with low birth weight: perinatal contributions to sympathoadrenal overactivity 480
S. Johansson, M. Norman, L. Legnevall, Y. Dalmaz, H. Lagercrantz & M. Vanpée

Impact of inflammation on epigenetic DNA methylation – a novel risk factor for cardiovascular disease? 488
P. Stenvinkel, M. Karimi, S. Johansson, J. Axelsson, M. Suliman, B. Lindholm, O. Heimbürger, P. Barany, A. Alvestrand, L. Nordfors, A. R. Qureshi, T. J. Ekström & M. Schalling

RAPID COMMUNICATION

Neuromyelitis optica following CMV primo-infection 500
C. Tran, R. A. Du Pasquier, M. Cavassini, Y. Guex-Crosier, R. Meuli, D. Ciuffreda & G. Waeber

CASE REPORT

Unique patient with cerebrotendinous xanthomatosis. Evidence for presence of a defect in a gene that is not identical to sterol 27-hydroxylase 504
M. Hansson, M. Olin, C.-H. Floren, S. von Bahr, F. van't Hooft, S. Meaney, G. Eggertsen & I. Björkhem

NO. 6, June 2007

REVIEW ARTICLES

Role of the innate immune system in host defence against bacterial infections: focus on the Toll-like receptors 511
B. Albiger, S. Dahlberg, B. Henriques-Normark & S. Normark

Gallstone disease 529
H.-U. Marschall & C. Einarsson

The membrane protein universe: what's out there and why bother? 543
G. von Heijne

ORIGINAL ARTICLES

Vitamin D status and parathyroid hormone levels in relation to blood pressure: a population-based study in older men and women 558
M. B. Snijder, P. Lips, J. C. Seidell, M. Visser, D. J. H. Deeg, J. M. Dekker & R. M. van Dam

Secular trends in cardiovascular risk factors: an age-period cohort analysis of 6 98 954 health examinations in 1 81 350 Austrian men and women 566
H. Ulmer, C. C. Kelleher, N. Fitz-Simon, G. Diem & H. Concin

Angiotensin converting enzyme inhibitor and angiotensin receptor blockade use in relation to outcomes in anticoagulated patients with atrial fibrillation 577
G. Y. H. Lip, L. Frison & M. Grind on Behalf of the SPORTIF Investigators and the SPORTIF Executive Steering Committee

Increased formation of 8-iso-prostaglandin $F_{2\alpha}$ is associated with altered bone metabolism and lower bone mass in hypercholesterolaemic subjects 587
R. A. Mangiafico, G. Malaponte, P. Pennisi, G. Li Volti, G. Trovato, M. Mangiafico, Y. Bevelacqua, F. Mazza & C. E. Fiore

Validation of a clinical prognostic model to identify low-risk patients with pulmonary embolism 597
D. Aujesky, A. Perrier, P.-M. Roy, R. A. Stone, J. Cornuz, G. Meyer, D. S. Obrosky & M. J. Fine

CASE REPORT

Recurrent herpes simplex virus infection in a patient with autoimmune polyendocrinopathy–candidiasis–ectodermal dystrophy associated with L29P and IVS9-1G>C compound heterozygous autoimmune regulator gene mutations 605
S. Nagafuchi, K. Umene, F. Yamanaka, S. Oohashi, M. Shindo, H. Kurisaki, J. Kudoh, N. Shimizu, T. Hara & M. Harada